



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D6023-106
Job Sheet 166332



Part No: D6023-106

Job Qty: 23 ea

Part Name: Crosstube Material



Part Weight: 0 lbs

Job Created: 9/30/17

Due Date: 10/31/17

Type: Stock

Note: DWG REV A

Ship Via:

Status: Scheduled

Job Tracking No:

Created By: Mario Poulin

Description:

Priority: Medium

Bill of Materials

Job Routing

Op No	Operation	Qty	Due Date	Standard		Workcenter/Supplier	
				Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time
100	Purchasing	23 pcs	10/31/17	0.00	0.00	Purchasing	50 17-11-25
110	Packaging	23 pcs	10/31/17	0.00	0.00	Packaging2	50 17-11-25
120	QC	23 pcs	10/31/17	0.00	0.00	QC18	33
140	Packaging	23 pcs	10/31/17	0.00	0.00	Packaging3	MO 2018-10-31
150	QC21-SA	23 Ea	10/31/17	0.00	0.00	QC21	21 OCT 31 2018

Part Op 100 - Issue P/O _____ a) Extrude as per Dwg D6023 b) Material: 7075-T6/T6511 (VVV-T-700/7 or QQ-A-225/9 Descriptions: or QQ-A-200/11) seamless aluminum tube c) Minimum ultimate tensile strength = 77 ksi d) Minimum tensile yield strength=66 ksi e) Material certification is required
110 - Ensure material certification is attached
120 - Ensure Material certification comply to Dwg D6023
140 - LOCATION : LG003

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
100-Purchasing	D6023-106P	23	0	0	0

Part Specifications

Specifications could not be found.

DART
AEROSPACE
S013837



Crosstube Material

PART NO: D6023-106
Revision:
Operation: Purchasing
Change No:

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA

TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Mfg Date: 11/25/17

Job No: 166332

Work Order ID 166332

Friday, September 15, 2017 10:52:20 AM

166332

Page 1

Item ID: D6023-106 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Crosstube Material
Start Date: 9/15/2017 Start Qty: 23.00 ***23*** Cust Item ID:
Required Date: 11/15/2017 Req'd Qty: 23.00 ***23*** Customer:
Reference: **DAS**
13
9-30
Approvals: Process Plan: **SEP 15 2017** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D6023	A								

100

0.00

100

Purchasing

Purchasing

PURCHASING

Memo

Issue P/O **37796**

0.00

23**SEP 15 2017**

a) Extrude as per Dwg D6023

b) Material: 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11)
seamless aluminum tube

c) Minimum ultimate tensile strength = 77 ksi

d) Minimum tensile yield strength = 66 ksi

e) Material certification is required

***EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE
SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH
AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS,
OR DENTS.***

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

Work Order ID 166332***166332***

Page 2

Friday, September 15, 2017 10:52:20 AM

Item ID: D6023-106 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Crosstube Material
Start Date: 9/15/2017 Start Qty: 23.00 ***23*** Cust Item ID:
Required Date: 11/15/2017 Req'd Qty: 23.00 ***23*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110 *110* Packaging	Receive & Inspect for Damage & Mat'l Certs	0.00							
Packaging	Memo Ensure material certification is attached	0.46							
120 *120* QC	QC18 In-Coming Inspection Material	0.00							
Quality Control	Memo Ensure Material certification comply to Dwg D6023	0.00							
140 *140* Packaging	Identify as per dwg & Stock Location: _____	0.00							
Packaging	Memo LOCATION : LG003	0.23							

Friday, September 15, 2017 10:52:20 AM

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Quality Control

Friday, September 15, 2017 10:52:19 AM

Work Order ID: 166332

166332

Parent Item: D6023-106

D6023-106

Parent Item Name: Crosstube Material

Start Date: 9/15/2017**Required Date:** 11/15/2017

Start Qty: 23.00

Required Qty: 23.00

Comments: IPP REV:A 15.11.09 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6023-106P		Purchased	No			100	Each	0.0000	1	23			
D6023-106P Crosstube Material													

8

7

2

1

D

D

C

C

B

B

NOTES:

1) MATERIAL: 3.216 OD X 0.483 WALL 7075-T6/
QQ-A-200/11) SEAMLESS ALUMIN
MINIMUM ULTIMATE TENSILE ST
MINIMUM YIELD TENSILE STRE

2) FINISH: NONE

3) TOLERANCES: PER ASTM B210 AS FOLLOW
O.D.: +/- 0.008 MEAN (+/- 0.01
WALL.: +/-0.021 MEAN (+/- 0.0
LENGTH: XXX +0.188/-0.000
STRAIGHTNESS: 0.010" DEVI

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: N/A

6) IDENTIFICATION: NONE

7) WEIGHT: N/A

8) EXTREME CARE MUST BE TAKEN TO PROTE
THE OUTSIDE SURFACE MUST BE SMOOTH
AS SCRATCHES, NICKS, OR DENTS. DEFECT
LONGITUDINALLY. CIRCUMFERENTIAL GRIN

	AP	15.10.13
DESCRIPTION	BY	DATE

DART AEROSPACE LTD

HAWKESBURY, ONTARIO, CANADA

DRAWING NO.

D6023

REV. A

SHEET 1 OF 1

TITLE

CROSSTUBE MATERIAL

SCALE

NTS

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8

7

2

1

A



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO37796

Supplier: KAI001-VU
Kaiser Aluminum
6573 W WILLIS ROAD
CHANDLER, AR 85226 USA
Phone: 520 796 1097
Fax: 520 796 0596

PO No: PO37796
PO Date: 9/15/17
Due Date: 11/10/17
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Pymt Terms: net 30
Freight Terms:
Special Comments:

Items

Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	D6023-106P	-	Crosstube Material		Firmed	11/10/17	28 pcs	0 pcs	28 pcs	\$562.96/pcs	\$15,762.88

Line Item Note B166332

Grand Total: \$15,762.88

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/8/17 4:12 PM dart.baker.diane

11/10/17

KAISER ALUMINUM FABRICATED PRODUCTS, LLC
PACKING LIST

PAGE 1

KAISER ALUMINUM
6573 W. WILLIS ROAD
BOX 5011
CHANDLER AZ 85226

SOLD TO

DART AEROSPACE LTD
HAWKESBURY ON K6A 1K7

INSIDE SALES REP

FACIO

DART AEROSPACE LTD
1270 ABERDEEN
STREET

BILL OF LADING

227442

SHIP DATE

11/10/17

SHIPMENT NBR- 224522 0001

CARRIER

FED EX FREIGHT

LOAD NUMBER

LV57

HAWKESBURY

ON

K6A 1K7

TOTAL GROSS WT

1243 LBS.

SHIP ITEM RELEASE	ITEM	DESCRIPTION	P.O. NUMBER	LOT NUMBER	PACKAGE NUMBER	PACK PIECES	GROSS WGT	NET WGT	BACK FOOTAGE ORDER	INHOUSE DATE
1 224522	001	SPIRIT-391341 YOUR PART#: D6023-106P 51821 5.0262#/FT 4000 7075 T6511 106 IN +.1880 -.0000 TOL 7075 T6511 3.216" OD X 0.483" WALL HA EST	COMPLETE 37796	*51821-005 Dash 0001	M000143907	28 28	1243	1243	247.33	11/10/17
TOTAL:						28	1243	1243	247.33	
TOTAL NET WT								1243	FOOTAGE	247.33

* MATERIAL CERTIFICATION REQUIRED FOR THIS LOT NUMBER.

DAS
33
9-89
807-11-25

KAISER ALUMINUM FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: 37796-1		CUSTOMER PART NUMBER: D6023-106P ✓		PRODUCT DESCRIPTION: 7075 T6511 3.216 OD X 0.483 WALL HA EST	
KAISER ORDER NUMBER: 224522	LINE ITEM: 001	SHIP DATE: 11/10/2017	KAISER LOT NUMBER: 51821-005	ALLOY: 7075	TEMPER: T6511
WEIGHT SHIPPED: 1243.000 LB	QUANTITY: 28.000 PCS ✓	B/L NUMBER: 227442	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 8.833 FT
SHIP TO: DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7 CANADA			SOLD TO: DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7 CANADA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	LEAD
51821-005	0001	1	83.3	77.1	13.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.40	0.50	2.00	0.30	2.90	0.28	6.10	0.20	NA	NA	NA	0.05	0.15
Minimum	0.00	0.00	1.20	0.00	2.10	0.18	5.10	0.00	NA	NA	NA	0.00	0.00
40653	.08	.15	1.64	.02	2.47	.20	5.75	.03	.00	.00	.01	.01	.02
40357	.07	.13	1.67	.01	2.45	.20	5.80	.02	.00	.00	.01	.01	.02

Applicable Requirements:

AMS-QQ-A-200/11 Also conforms to QQ-A-200/11
No Weld Repair. Mercury Free.

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager

[Signature]

DAS
38
9-89

Plant Serial: 00026645
Kaiser Order Number: 224522
Line Item: 001

EXTRUSION INSPECTION SHEET

DART
AEROSPACE

TUBE #	TOTAL LENGTH	SIDE A		SIDE B		Measurement unit		Symbol	"	ULTRA SONIC MEASUREMENTS						
		DIA		DIA		INSIDE DIA	wall thickness measured w/vern			Strightness at 12" in middle	Rockwell Reading	LOCATION on tube	R1	R2	R3	R4
		R1	R2	R1	R2											
DWG										N/A	Middle	N/A				
1	106"	3.212	3.214	3.210	3.216	2.265	0.480	0.485	0.001	N/A	Middle	0.485	0.483	0.477	0.478	
2	106"	3.212	3.219	3.206	3.216	2.258	0.484	0.482	0.034	N/A	Middle	0.477	0.480	0.480	0.477	
3	106"	3.213	3.224	3.213	3.215	2.262	0.484	0.475	0.010	N/A	Middle	0.481	0.480	0.475	0.478	
4	106"	3.220	3.216	3.212	3.218	2.260	0.486	0.482	0.030	N/A	Middle	0.480	0.478	0.474	0.477	
5	106"	3.227	3.219	3.212	3.226	2.260	0.499	0.477	0.015	N/A	Middle	0.481	0.480	0.476	0.480	
6										N/A	Middle					
7										N/A	Middle					
8										N/A	Middle					
9										N/A	Middle					
10										N/A	Middle					
11										N/A	Middle					
12										N/A	Middle					
13										N/A	Middle					
14										N/A	Middle					
15										N/A	Middle					
16										N/A	Middle					
PART #		06023-106				P/O#		37796		BATCH #		5013837		Notes:		

DEC 12 2017